Mr. Marshall both call attention to the cause which has doubtless prevented the fact from being generally recognized at an earlier date, viz. the changes which take place in dried specimens of *Mantispa*. On this account, and because of the important part played by movement, the appreciation of the mimetic resemblance required the study of the living insect.

"*Salisbury, Sept.* 21, 1900.—The large South African *Mantispa grandis* is an excellent mimic, on the wing, of the *Belenogaster* wasps. I caught one at Malvern, on my way home in 1896, which I gave to McLachlan. This insect completely took me in; it flew out of a loquat-tree which I was beating, and I at once took to my heels thinking I had struck a nest of these vicious wasps. Fortunately I kept an eye on the insect, and, as it seemed to be a species of *Belenogaster* new to me, I followed it up and caught it, when to my surprise and delight it proved to be only a *Mantispa*. Unfortunately in a dried specimen the resemblance is much spoilt by the shrivelling and discoloration of the abdomen."

34. Convergent Groups of South African Hemiptera (G. A. K. M.)

A. *Black and Red Lygæoid Group* (Represented on Plate XIX).

Lygæidæ { Lygæus rivularis (fig. 44); L. elegans (fig. 46); L. crudelis (fig. 47); Graphostethus servus (fig. 45).
Reduviidæ Reduvius sp. (fig. 43).

In this group I consider that the Lygæids form a Müllerian association, of which the *Reduvius* is probably a Batesian mimic. The former insects are very abundant, occurring on many different plants, but the *Lygæi* are especially fond of the balloon-like seed-vessels of *Gomphocarpus*. The *Reduvius* inhabits much the same stations, though I have never seen it (to my remembrance) actually in company with the Lygæids, and it is a decidedly rarer insect.

B. *Group of Yellow Hemiptera with Black Apex and one or two Black Bars* (Represented on Plate XIX).

At Malvern, Natal.

Pyrrhocoridæ.	*Reduviidæ.*
Dysdercus nigrofasciatus (fig. 49).	Phonoctonus nigrofasciatus (fig. 48).

At Salisbury, Mashonaland.

Pyrrhocoridæ.	*Reduviidæ.*
Dysdercus superstitiosus (fig. 50).	Phonoctonus formosus (fig. 52).
,, intermedius (fig. 51).	

The significance of the mimicry in this group has not yet been tested by experiment, and the exact relationship of the Reduviids to the common and undoubtedly distasteful *Dysdercí* is not quite clear. Dr. Dimock Brown, who observed *Phonoctonus* in company with myself at Malvern, suggested that its colouring may be pseudepisematic, and that it may feed upon the *Dysdercus* which it mimics so marvellously well. Personally I incline rather to the belief that both this species and the northern *P. formosus* are Batesian mimics. Both species occur but rarely (indeed, of the latter, I know only two specimens), they do not possess the strong smell which characterizes some of the Reduviids, and their jointed rostrum is a very inefficient weapon for protective purposes. I am not aware that they have been observed feeding on *Dysdercí* or even in company with them (cf. G. Breddin, Zeitsch. f. Naturw. 1896, pp. 36–38).

[Breddin considers the resemblance of the Reduviid to be a case of aggressive (pseudepisematic) mimicry, as he thinks with Dr. Dimock Brown it would prey on the *Dysdercus*. I believe that all such groups in the Hemiptera are synaposematic.—E. B. P.]

35. Miscellaneous Observations on South African Insects. (G. A. K. M.)

A. *Note on the Courtship of Limnas chrysippus.*

Salisbury, June 26, 1900.—In some old notes I find the following observation on the courtship of *chrysippus*. When first observed the female was settled on the